

CLASS 252 Subclass Definition 500

Compositions under the class definition which either conduct or emit electrons not provided for above.

- (1) **Note.** This is the residual home for all conductive and emissive compositions and all electrical devices defined solely in terms of their composition with no claimed significant device structure. By way of example only, these devices are electrodes, filaments or shields for electric lamps and electric space discharge devices, welding electrodes, contacts, switches, brushes, and resistances.
- (2) **Note.** Where the device is claimed in terms of the composition of which it is composed and also in terms of significant device structure, it is classified in the appropriate class providing for such art devices. See the search notes below for such art classes.
- (3) **Note.** Where a patent contains claims to the electrical device defined only by its composition classified in this or indented subclasses and also claims to a method of preparing such device provided for in another class, the patent is classified in this class 252 and cross-referenced to such other class. See the search notes below for other classes which provide for methods of making electrical devices.
- (4) **Note.** This and indented subclasses are superior to other composition classes as to coating or plastic compositions useful in making or coating electrical devices. Thus a composition which would otherwise be classified in Class 106, or in the Class 520 series would be classified herein if it is claimed as being electrically conductive or emissive or is so disclosed and the claims are generic as to the composition. As to methods of preparing the composition or device, this and indented subclasses will take those methods ordinarily classified in Class 106 within the limits set forth in section IV and (4) Note of the class definition of Class 106. The same limitations apply as between these subclasses and Class 260.
- (5) **Note.** Where the claimed electrically conductive or emissive device is defined in terms of only a single material, it is classified in the appropriate class providing for such material. See subclass 502 hereunder, in (1) Note for compositions or devices comprising elemental carbon.

SEARCH THIS CLASS, SUBCLASS :

- 62.2, for electrolytes for electrical devices such as rectifiers and condensers.
- 62.3, for barrier layer device compositions.
- 62.5, for magnetic compositions.
- 62.9, for piezoelectric compositions.
- 181.1+, for compositions specialized for use as getters for electric lamps and electric space discharge devices and for materials and compositions specialized for use in generating a gas or vapor within the container of an electric lamp or electric space discharge device. Where the composition has utility as a getter or gas or vapor generating material within the envelope of an electric lamp or electric space discharge device, and also as an electrode or filament useful for purposes other than gettering or generating a gas or vapor (e.g., emitting electrons), it is classified in

subclasses 181.1 and cross-referenced to subclasses 500

301.1, for radio-active compositions and materials.

301.16 through 301.6 for fluorescent and phosphorescent compositions and materials.

570+, for fluent dielectric compositions ("insulating oils") which contain a hydrocarbon and a nonhydrocarbon.

SEARCH CLASS:

- 75, Specialized Metallurgical Processes, Compositions for Use Therein, Consolidated Metal Powder Compositions, and Loose Metal Particulate Mixtures, subclasses 228 for products with a continuous phase of metal made by consolidating metal particles which are electrically conductive or emissive.
- 96, Gas Separation: Apparatus, subclasses 95 and 98 for electrode stock material or composite which has been specifically altered, configured, or constructed for use in electric or electrostatic field separation apparatus for gas separation.
- 106, Compositions: Coating or Plastic, appropriate subclasses for miscellaneous coating, impregnating and plastic compositions including electrical insulating compositions. See (4) Note above, and (2) Note of the class definition of Class 106, and the reference to Class 252 therein.
- 148, Metal Treatment, subclasses 240 for processes of treating solid metal with a reactive material to form a coating thereon.
- 200, Electricity: Circuit Makers and Breakers, subclass 166 for contacts and switches wherein there is significant structure of the device claimed whether or not the device is also defined in terms of the composition of which it is composed.
- 204, Chemistry: Electrical and Wave Energy, subclasses 280 for electrodes and electrode compositions specialized for use in electrolytic apparatus adapted to carry out processes within the scope of Class 204.
- 219, Electric Heating, subclasses 50 for arc welding and heating of metal. Note particularly indented subclasses 146.1 for welding electrodes.
- 264, Plastic and Nonmetallic Article Shaping or Treating: Processes, appropriate subclasses for processes within the class definition, for production of articles which may be disclosed to be electrodes for electrical devices or electrical conductors. In particular, see subclasses 61 and 104. Subclasses 165 pertains to forming of continuous or indefinite length articles, e.g., filamentary products. See subclass 30 for furnace lining formation or repair and see the notes thereto.
- 310, Electrical Generator or Motor Structure, subclasses 252 for electric current conducting brushes wherein there is significant brush structure whether or not the composition of which the brushes are composed is recited.

- 313, Electric Lamp and Discharge Devices, subclass ~~311~~ and the subclasses specified in the Notes thereto for discharge devices which have an electrode defined by the composition or material of which it is composed, and subclasses ~~326~~ for filaments, electrodes and shields for electric lamps and electric space discharge devices which are defined by significant structure of the device, whether or not the composition of the device is recited.
- 337, Electricity: Electrothermally or Thermally Actuated Switches, appropriate subclasses for electrothermal and thermally actuated switches with contacts of a particular material or composition of material especially subclasses ~~270~~ and ~~416~~ for particular fusible material.
- 338, Electrical Resistors, appropriate subclasses, for electrical resistors wherein there is significant resistance structure of the device claimed, whether or not the device is also defined in terms of the composition of the element or terminals.
- 373, Industrial Electric Heating Furnaces, subclasses ~~88~~ and ~~71~~ for furnace electrodes and furnace linings, respectively, of specific composition where combined with furnace structure or when defined in terms of significant electrode or lining structure.
- 381, Electrical Audio Signal Processing Systems and Devices, subclasses ~~179~~ for resistance element used in the transmission of sound by means of electricity recited in terms of significant resistant structure.
- 419, Powder Metallurgy Processes, subclass ~~4~~ for powder metallurgical methods for producing filaments or fibers.
- 420, Alloys or Metallic Compositions, for single metals and for alloys and metallic compositions.
- 427, Coating Processes, subclasses ~~58~~ for processes of coating, per se, wherein the product is an electrical article.
- 428, Stock Material or Miscellaneous Articles, appropriate subclasses, especially subclasses ~~375~~, ~~408~~, ~~411~~, ~~539.5~~, ~~545~~, ~~553~~, and ~~615~~ for a mere impregnated or coated base which may exhibit electrically conductive and emissive properties. Such coated bases include electrodes, filaments and shields for electric lamps and discharge devices, welding electrodes, resistances, brushes, contacts, wires and electrodes in general which are not specifically provided for elsewhere, or do not include sufficient structure to indicate classification elsewhere.
- 429, Chemistry: Electrical Current Producing Apparatus, Product and Process, subclasses ~~209~~ for battery electrodes.
- 445, Electric Lamp or Space Discharge Component or Device Manufacturing, and the classes specified in the notes thereto for process and apparatus for the manufacture of electrical conductors or emitters such as electrodes or emitters such as electrodes or shields for electric space discharge devices.

505, Superconductor Technology: Apparatus, Material, Process, subclasses 100 for high temperature (T_c 30 K) superconducting materials, per se, or subclasses 300 for processes of producing same.